MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2017/2018

DMM5018 – INTRODUCTION TO MULTIMEDIA

(For Diploma Students Only)

16 OCTOBER 2017
9.00 a.m. – 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENT:

1. This Question paper consists of **5 pages** with 2 sections.
2. For **SECTION A**: Answer **ALL** questions on the OMR sheet provided.
3. For **SECTION B**: Answer **ALL** questions in the Answer Booklet provided.

Section A : Multiple Choice Questions (20 Marks)

*Instruction: Please mark your answers on the **OMR sheet** provided.*

1. Interactive multimedia is called _____ where a user is provided a structure of linked multimedia elements for navigation.
   A. hypertext
   B. hypermedia
   C. hyperlink
   D. hyperaction

2. Which of the following statement **BEST** describe nonlinear multimedia projects?
   I. Projects that are interactive.
   II. Projects where users are given navigational control.
   III. Websites are the examples of nonlinear multimedia projects.
   IV. It is usually intended for display purposes with not much interaction or distraction from the audience.
   A. I and II only
   B. I, II, and III
   C. II, III, and IV
   D. All of the above.

3. Which of the following stages involves the preparation of a short prototype or proof-of-concept for a multimedia project?
   A. Planning and Costing
   B. Designing and Producing
   C. Delivering
   D. Testing

4. Which of the following tools allows the graphic designers to create and modify vector graphics?
   A. Drawing tools
   B. Painting tools
   C. Word processing tools
   D. Image editing tools

5. Which of the following is the **MOST** suitable typeface to be used in printed works?
   A. Arial
   B. Myriad Pro
   C. Times New Roman
   D. *Lucida Handwriting*

6. Placing an uppercase letter in the middle of a word is referred as _____.
   A. uppercase
   B. lowercase
   C. sentence case
   D. camelcase

7. The process of using intricate algorithms to apply user-specified effects of a 3D model is called _____.
   A. dithering
   B. morphing
   C. rendering
   D. autotracing

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8. Which of the following system used for drawing vectors, where a pair of numbers describes a point in two-dimensional space as the intersection of horizontal and vertical lines?
   A. XY Coordinate
   B. Graph Coordinate
   C. Vector Coordinate
   D. Cartesian Coordinate

9. The following statements are **TRUE** about bitmap sources **EXCEPT**:
   A. Capture a bitmap using a camera.
   B. Draw a 3D model using Autodesk 3Ds Max software.
   C. Capture a bitmap from a photo or other artwork using a scanner to digitize the image.
   D. Grab a bitmap from an active computer screen with a screen capture program, and then paste in into a paint program or your application.

10. Which of the following is an approach that should be avoided in computer graphics?
   A. Use eye-grabbers such as drop caps.
   B. Use plenty of white space in your screens.
   C. Reversed graphics to emphasize important text or images.
   D. Pictures with a lot of contrast in color or brightness as backgrounds.

11. Which of the following **BEST** describes about 2½-D space?
   A. An animations are very simple and static.
   B. A complicated and realistic animations are done by computer.
   C. A realistic animation by adding the dimension of time or a schedule in the animation.
   D. An illusion of depth is created through shadowing, highlighting, and forced perspective.

12. The study of the movement and motion of structures connected with joints is known as _____.
   A. tweening
   B. morphing
   C. kinematics
   D. inverse kinematics

13. The following statements are **TRUE** about MIDI sound **EXCEPT**:
   A. Working with MIDI does not requires knowledge of music theory.
   B. MIDI files are much smaller than digitized audio.
   C. MIDI does not have consistent playback quality, while digital audio provides consistent playback quality.
   D. MIDI files sound better than digital audio files when played on a high-quality MIDI device.

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14. Below are the three sampling frequencies most often used in multimedia CD-quality **EXCEPT**:
    A. 22.05 KHz
    B. 44100 Hz
    C. 124.1 KHz
    D. 11.025 KHz

15. Which of the following audio formats is the default format for iPod, iPhone, Wii, PlayStation, and mobiles phone?
    A. MP4
    B. AAC
    C. WAV
    D. AVI

16. The algorithm used to compress a video for delivery and then decodes the compressed video in real time for fast playback is called _____.
    A. tracking
    B. chroma
    C. codecs
    D. progressive

17. Which of the following is **NOT** a good idea when creating titles to be used in video?
    A. Fonts for titles should be plain, serif, and bold enough to be easily read.
    B. Leave titles on screen long enough so that they can be read.
    C. Avoid colors like bright reds and magenta that are too hot, they might twinkle and buzz.
    D. When you are laying text onto a dark background, use white or a light color text.

18. The following examples are high-end nonlinear editing (NLE) software **EXCEPT**:
    A. Adobe Premiere
    B. Apple's Final Cut
    C. Avid's Media Composer
    D. Apple's iMovie

19. Which of the following is **NOT** an option for a multimedia developer can do to work within the constraints of bandwidth bottlenecks?
    A. Allow users to download data repeatedly.
    B. Compress data into ZIP file before transmitting.
    C. Design multimedia elements to be efficiently compact.
    D. Implement streaming methods that allow data to be transferred and displayed incrementally as it comes in.

20. JPEG images may contain 24 bits of color depth and use a _____ compression method.
    A. losseless
    B. arithmetic
    C. lossy
    D. run length encoding

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Section B: 4 Structured Questions (80 marks)
*Instruction: Please write your answers in the **Answer Booklet** provided.*

Question 1 [Total: 20 Marks]

a) Discuss **TWO** advantages of multimedia applications in business marketing and advertising. (4 Marks)

b) List **FOUR** examples of multimedia applications in business marketing and advertising. (4 Marks)

c) Discuss **TWO** differences between alpha testing and beta testing in multimedia stages. (8 Marks)

d) Discuss **TWO** advantages of storing fonts in vector over the bitmaps. (4 Marks)

Question 2 [Total: 20 Marks]

a) Describe **THREE** steps a graphic designer should do before commencing the image creation and editing. (6 Marks)

b) Discuss **THREE** legal rights that protecting use of images from clip art galleries or any images you may obtained from web. (6 Marks)

c) Explain **TWO** functions of creating navigation map in designing a multimedia project. (4 Marks)

d) Compare the navigation flow between composite and hierarchical structure. (4 Marks)

Question 3 [Total: 20 Marks]

a) Define the following terms:
   i) Tweening (2 Marks)
   ii) Keyframes (2 Marks)

b) List **FOUR** file formats used in animation. (4 Marks)

c) Describe **THREE** basic sound editing operations and function. (6 Marks)

d) Calculate the audio file size in Kilobytes for a 50 seconds recording at 20.05 KHz, 8-bit resolution stereo sound. (6 Marks)

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Question 4 [Total: 20 Marks]

a) Discuss **THREE** factors that determine the file size of a digital video. (6 Marks)

b) Describe **TWO** characteristics of MPEG-4 making it to be the ideal standard for streaming rich media over the internet. (4 Marks)

c) Explain **THREE** guidelines in designing effective multimedia elements for the Web. (6 marks)

d) State **FOUR** programming languages that you can use to create dynamic web pages. (4 Marks)

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